

ABSTRACT OF THE DISCLOSURE

Memory resources are effectively utilized by visually setting an external memory resource as an internal memory resource.

A first storage controller has a multilayer memory hierarchy constructed by LDEV (logical device) connected from LUN, and VDEV (virtual device) connected to the lower order of the LDEV. At least one of the VDEVs is constructed by mapping the memory resources arranged in external storage controllers. The functions of a stripe, RAID, etc. can be added in the mapping. Various kinds of functions (remote copy, variable volume function, etc.) applicable to the normal internal volume can be also used in a virtual internal volume by using the external memory resource as the virtual internal memory resource so that the degree of freedom of utilization is raised.